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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,502	11/06/2003	Daniel Sobek	10030727-1	7632

7590 06/14/2005

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

JACYNA, J CASIMER

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/701,502	<b>Applicant(s)</b> SOBEK, DANIEL	
	<b>Examiner</b> J. Casimer Jacyna	<b>Art Unit</b> 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11062003</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's election with traverse of group 8, figure 3E in the reply filed on 5/2/2005 is acknowledged. The traversal is on the ground(s) that reasons and examples to support the restriction as required by MPEP 803 have not been given. This is not found persuasive because a species restriction is a restriction between allegedly independent inventions. If it can be shown that the separate inventions are not patentably distinct by writing an allowable generic claim, then the species restriction will be withdrawn. If an allowable generic claim cannot be written, then the separate, distinct and independent structures will be able to sustain separate patents and the restriction is proper. In regard to the grouping of claims, each separate structure disclosed in the specification has been identified in case Applicant decides to add claims reading on the disclosed structures. This will negate the possibility of having to mail a second restriction requirement if Applicant should add claims to currently unclaimed embodiments.

The requirement is still deemed proper and is therefore made FINAL.

2. Claim 14 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/2/2005.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-3, 5, 7-10 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartley (6,007,309). Hartley discloses a microfluidic structure including first and second electrodes as are the upper and lower elements 116 in figure 4, or 217a and 219a in figure 13, and elastic layers facing the other electrode 117, 118, 231, 233. In regard to claims 3 and 7, the electrodes are gold as disclosed on col. 3, line 65, and the membranes are polyurethane, which is "a urethane" as claimed, as disclosed on col. 3, lines 20-33.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley (6,007,309) in view of van Lintel (5,271,724). Hartley discloses a micropump with gold electrodes substantially as claimed but does not disclose the electrodes to be made from indium tin oxide. However, Lintel teaches another micropump having electrodes made from either gold or indium tin oxide for the purpose of using a second material when a first material is not readily available to a user. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the electrodes of Hartley from indium tin oxide as, for example, taught by Lintel because Lintel teaches that indium tin oxide is a suitable substitute for gold in making micropump electrodes in the instance that gold is not readily available to a user.

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7. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley (6,007,309) in view of Sharma et al. (6,435,840). Hartley discloses a micropump with gold electrodes substantially as claimed but does not disclose the electrodes to be made from a polymer. However, Sharma teaches another micropump having electrodes made from either gold or a conducting polymer for the purpose of using a second material when a first material is not readily available to a user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the electrodes of Hartley from a conducting polymer as, for example, taught by Sharma because Sharma teaches that a conducting polymer is a suitable substitute for gold in making micropump electrodes in the instance that gold is not readily available to a user.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cabuz et al., Cabuz and Xie et al., teach other micropumps with sets of electrodes that are actuated to pump fluid through a microchannel with an elastic layer covering one of the electrodes. Bishop et al., teaches a method for using a tube pump with separate sets of electrodes in figures 9-11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Casimer Jacyna whose telephone number is 571-272-4889. The examiner can normally be reached on Wed. thru Fri. 9AM-7PM, Mon. 7AM-1PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 703-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Casimer Jacyna", with a long, sweeping horizontal stroke extending to the right.

J. Casimer Jacyna  
Primary Examiner  
Art Unit 3751

JCJ